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TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/080,073
Filing Date	February 21, 2002
First Named Inventor	De et al.
Art Unit	2661
Examiner Name	Robert W. Wilson
Attorney Docket Number	I-2-0173.5US

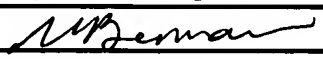
Total Number of Pages in This Submission

ENCLOSURES *(Check all that apply)*

- ☐ Fee Transmittal Form
- ☐ Fee Attached
- ☐ Amendment/Reply
- ☐ After Final
- ☐ Affidavits/declaration(s)
- ☐ Extension of Time Request
- ☐ Express Abandonment Request
- ☒ Supplemental Information Disclosure Statement
- ☐ Certified Copy of Priority Document(s)
- ☐ Response to Missing Parts/ Incomplete Application
- ☐ Response to Missing Parts under 37 CFR 1.52 or 1.53
- ☐ Drawing(s)
- ☐ Licensing-related Papers
- ☐ Petition
- ☐ Petition to Convert to a Provisional Application
- ☐ Power of Attorney, Revocation Change of Correspondence Address
- ☐ Terminal Disclaimer
- ☐ Request for Refund
- ☐ CD, Number of CD(s) _____
- ☐ After Allowance communication to Technology Center (TC)
- ☐ Appeal Communication to Board of Appeals and Interferences
- ☐ Appeal Communication to TC **(Appeal Notice, Brief, Reply Brief)**
- ☐ Proprietary Information
- ☐ Status Letter
- ☒ Other Enclosure(s) (please Identify below): Form PTO-1449

Remarks

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Michael L. Berman Reg. No. 51,464 Volpe and Koenig, P.C.
Signature	
Date	February 8, 2006

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In the **PATENT APPLICATION** of:	
De et al.	
Application No.: 10/080,073	Our File: I-2-0173.5US
Confirmation No.: 1400	Date: February 8, 2006
Filed: February 21, 2002	
For: SINGLE USER DETECTION BASE STATION	
Group: 2661	
Examiner: Robert W. Wilson	

SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT INCLUDING RULE 1.704(d) STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Further to Applicants' Duty of Disclosure pursuant to 37 C.F.R. §1.56, Applicants wish to bring to the Examiner's attention the material cited on the enclosed PTO-1449 form. Newly cited documents are indicated by an asterisk (*).

Pursuant to 37 C.F.R. §1.98(a)(2)(ii), copies of the newly cited U.S. publications and/or patent documents have not been included.

In the spirit of Rule 1.704(d), the undersigned certifies that each newly cited item of information contained in this Supplemental Information Disclosure Statement was cited in a communication in a counterpart U.S. application, and that this communication was not received by any individual designated in §1.56(c) more than

thirty (30) days prior to the filing of the supplemental information disclosure statement.

It is respectfully requested that the Examiner consider these documents and return an initialed copy of the PTO-1449 form indicating his/her consideration of the cited materials.

Respectfully submitted,

De et al.

By
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30 South 17th Street
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MLB/ks
Enclosure

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FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use several sheets if necessary)	ATTY. DOCKET NO. I-2-0173.5US	SERIAL NO. 10/080,073
	APPLICANT De et al.	
	FILING DATE February 21, 2002	GROUP 2661

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	*	5,157,688	10/1992	Dell-Imagine			
		5,337,226	12/1994	Davis			
		5,377,225	12/1994	Davis			
	*	5,477,225	12/1995	Young et al.			
		5,648,983	07/1997	Kostic et al.			
	*	6,064,689	05/2000	Vollmer et al.			
	*	2002/0126619	09/2002	De et al.			
	*	2002/0126646	09/2002	De et al.			
	*	2002/0131383	09/2002	De et al.			
	*	2002/0136160	09/2002	De et al.			
	*	2002/0141366	10/2002	De et al.			
	*	2002/0141372	10/2002	De et al.			
	*	2002/0141373	10/2002	De et al.			
	*	2002/0154599	10/2002	De et al.			
	*	2002/0154619	10/2002	De et al.			
	*	2002/0159383	10/2002	De et al.			
	*	2002/0159428	10/2002	De et al.			

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		Ramjee Prasad, Werner Mohr and Walter Konhauser editors, *Third Generation Mobile Communication Systems,* Artech House, Boston, 2000.
		Anja Klein, Ghassan Kawas Kaleh and Paul Walter Baier, "Zero Forcing and Minimum Mean-Square Error Equalization for Multiuser Detection in Code-Division Multiple-Access Channels", *IEEE Trans. on Vehicular Technology*, Vol.45, No. 2, pp. 276-287, May 1996.
		Naja Klein, "Data Detection Algorithms Specially Designed for the Downlink of CDMA Mobile Radio Systems", *IEEE 47th Vehicular Technology Conference*, pp. 203-207, May 1997.

EXAMINER	DATE CONSIDERED

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

		H.R. Karimi and N.W. Anderson, "A Novel and Efficient Solution to Block-Based Joint-Detection using Approximate Cholesky Factorization", *Personal, Indoor and Mobile Communications PIMRC' 98,* Conference Proceedings, Vol. 3, pp. 1340-1345, Sept. 1998, Boston, MA.
		ETSI STC SMG2 Layer 1 Expert Group, "Low Cost MMSE-BLE-SD Algorithm for UTRA TDD Mode Downline", Tdoc SMG2 UMTS L1, Helsinki, Finland, Sept. 1998.
		3G TS 25.102 V3.4.0, 2000-10, *"UTRA (TDD) Radio Transmission and Reception"*, 3rd Generation Partnership Project, Technical Specification Group RAN WG4, Annex B., pp. 37.
		Lang Tong; Guanghan xu; Kailath T: "Blind identification and equalization based on second -order statistics: a time domain approach", IEEE Trans. Inf. Theory (USA), IEEE Transactions on Information Theory, March 1994, USA, ISSN 0018-9448, VOL-40, NR 2, pages 340-349
		Benvenuto N. et al. "Joint Detection With Low Computational Complexity For Hybrid TD-CDMA Systems" VTC 1999-Fall. IEEE VTS 50th. Vehicular Technology Conference. Gateway to the 21st Century Communications Village. Amsterdam, Sept. 19-22, 1999, IEEE Vehicular Technology Conference, NY
		Vandaele P. et al. "Recursive Total Least Squares Algorithm for Single-User Blind Channel Equalisation: IEE Proceedings: Vision, Image and Signal Processing, Institution of Electrical Engineers, FB, Vol 147, No. 3, 23 June 2000
		Yang et al., "Fast Joint Detection with Cyclic Reduction Exploiting Displacement Structures", 2000 IEEE International Conference on Acoustics, Speech and Signal Processing, Istambul, Turkey, June 2000
		Proakis et al., "Digital Signal Processing", Macmillan Publishing Company, New York, NY, 1992, p. 835, para. 11.3.1, p. 890, para. 12.3.2
		Vollmer et al., "Joint-Detection Using Fast Fourier Transforms in TD-CDMA Based Mobile Radio Systems", International Annual Conference of ICT, 1999, pp. 1-7, p. 1, para. 1, p. 2, para. II, p. 3, para. III, p. 4, para. IV.
		Pigeonnat, "Alternative Solutions for Joint Detection in TD/CDMA Multiple Access Scheme for UMTS", IEEE Signal Processing Workshop on Signal Processing Advances in Wireless Communications, May 1999, pp. 329-332, p. 329, para. 2.

EXAMINER	DATE CONSIDERED

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